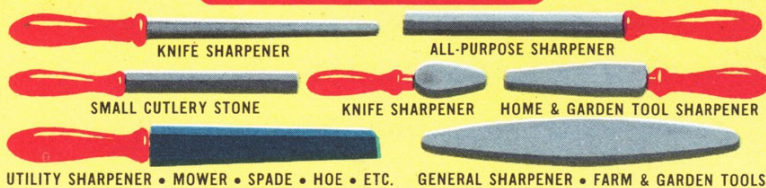


This chart was distributed by General Motors dealers in 1956

NATURAL ABRASIVE STONES MANUFACTURED

GENERAL PURPOSE STONES

COMBINATION
COARSE & FINE GRITS



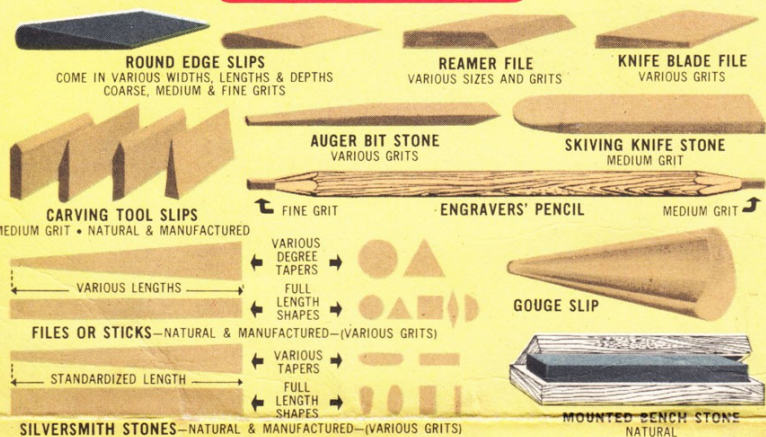
UTILITY SHARPENER • MOWER • SPADE • HOE • ETC. GENERAL SHARPENER • FARM & GARDEN TOOLS

SPECIAL PURPOSE STONES



SPORTSMAN'S STONE COMBINATION COARSE & FINE GRITS POCKET STONE MANUFACTURED & NATURAL FISH HOOK STONE

SLIPS, FILES AND STICKS



SILVERSMITH STONES—NATURAL & MANUFACTURED—(VARIOUS GRITS)

BENCH STONES



BENCH STONES COME IN VARIOUS WIDTHS, LENGTHS AND DEPTHS

Robertson Mo

1515 Danforth Ave.

TORONTO

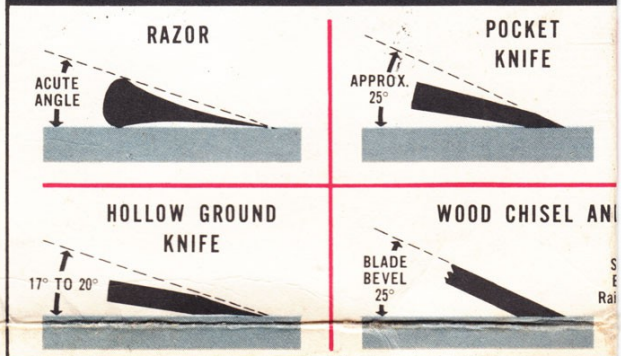
SHARP

STONE CHARACTERISTICS

There are two classes of sharpening stones. Natural and Manufactured. Natural stones are extremely dense and hard. They "cut" or sharpen more slowly but produce extremely fine edges. They are marketed in several grades of hardness.

The almost diamond-hard grit of Manufactured stones gives them fast cutting qualities. The two kinds in widest use are made of (1) Silicon Carbide grit, and (2) Aluminum Oxide grit. Each is made in three very general grades—Coarse, Medium, and Fine. The Silicon Carbide stones are made in many shapes and forms for cutlery and tool sharpening. The harder, tougher grit of Aluminum Oxide stones makes them ideal for the precision sharpening of hard tool steels. They, too, are formed into many special-purpose shapes.

APPROXIMATE EDGE BEVEL

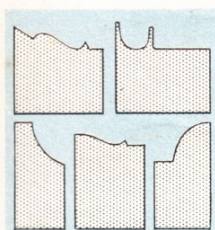


THE RAZOR or HOLLOW GROUND KNIFE. The hollow ground bevel and acute edge angle, ideal for its purpose, does not stand long or hard use.

THE POCKET KNIFE, a general purpose cutting tool, must have a sturdy edge. Thus, the edge bevel is not too acute. Only the edge bevel is ground in sharpening.

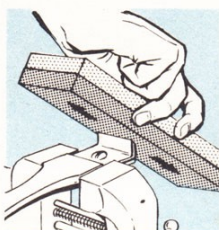
THE CARVING KNIFE pocket knife. Its edge is of its "saw" cutting action.

THE KITCHEN KNIFE obtuse edge bevel for a definitely coarse edge. It is easily and quickly re-



SPECIAL SHAPES

Difficult to reach edges on shaped machine plane cutters may be sharpened with Slips and special shaped Files or Sticks of Coarse, Medium and Fine grits.



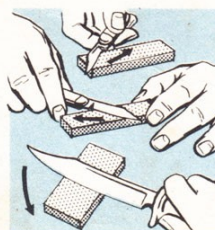
SCRAPER

Use Bench Stone on bevel, first the coarse, then the fine side. Remove wire edge. Stone again to fine edge. Turn edge of bevel with burnishing tool or equal.



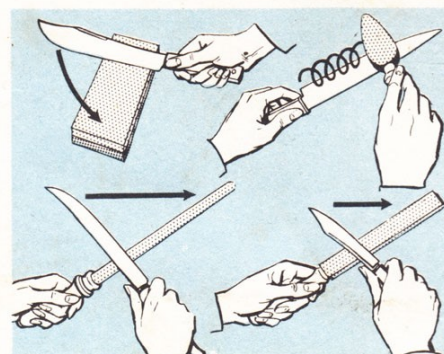
HATCHET

Place blade at proper bevel angle to stone and move blade from end to end of stone. If it has curved edge, use rocking motion so full edge gets equal stoning.



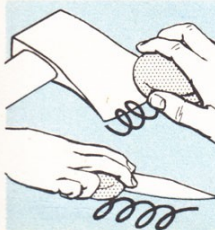
POCKET & HUNTING

Tip blade at proper bevel angle diagonally across stone. Draw blade the length of stone, pulling from heel to tip. Flip blade and repeat from opposite end.



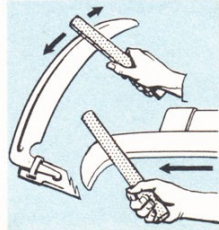
KITCHEN . . . CARVING . . . SMALL KNIVES

When Bench Stone is used, follow same stroking procedure as in "Pocket and Hunting" knives. Popular, handle-equipped stones are used as follows; Kitchen knives—Lay knife, cutting edge up, at counter edge and sharpen in a circular motion from heel to tip. Repeat on other side. Carving knife—Draw cutting edge diagonally along and across stone from heel to tip in long sweeping strokes, first one side of stone, then the other. Small knives—Stroke diagonally along and across stone from heel to tip. Repeat on other side.



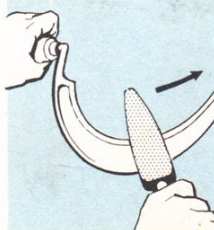
AXE . . . MACHETE

Hold tool steady. Use Axe Stone on both sides with circular strokes—back and forth for keen edge on axe—from heel to tip for desired edge on machete.



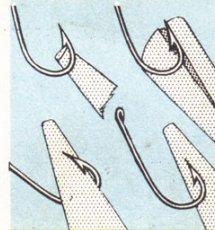
SCYTHE . . . BRUSHHOOK

Stroke Scythestone alternately on both sides of tool blade from heel to tip. Scythe bevel is controlled by resting stone on raised back of blade and edge.



SICKLE

Follow edge bevel and stroke from heel to tip on only one side of blade. Remove wire edge with stone flat against back of blade. Home and Garden stone shown.



FISHHOOKS

This special stone is tapered and grooved to fit most hooks. Diagrams show sharpening uses. Large end of stone for large hooks and small end for small.

Recommended sharpening methods differ. The ones, recommendations of experts in the abrasive stone industry, used in some of the operations described, however, show a sharp cutting edge. Wheel grinding requires different methods could not be included here. There are patented machines that do a satisfactory to good job of sharpening when expert, professional sharpening is recommended, especially for hollow ground knives and tools.

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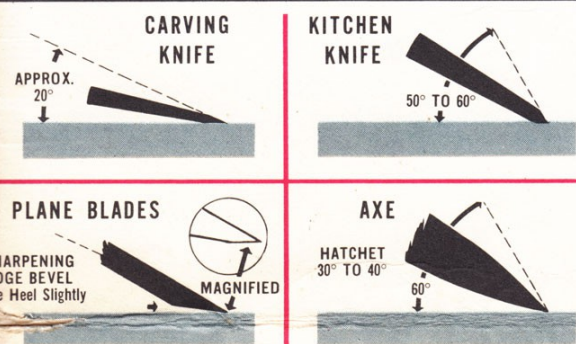
SHARPENING

THE CUTTING EDGE

The illustration immediately above represents a sharp cutting edge under microscopic magnification. These irregular "saw-teeth" are essential to the cutting edge. It is when the "teeth" break off that the edge loses its keenness.

Cutting edges are classed in three groups—coarse, medium and fine. **Coarse-edged tools**, generally, are those that are used with a saw-like motion. The comparatively coarse "saw-tooth" edge adds to cutting efficiency. Nearly all knives are coarse-edged. **Medium-edged tools** are typified by the broad, bevel-edged tools like chisels, planes, and draw knives. **Fine-edged tools** are used for highly specialized purposes, notably by the surgeon, engraver, etc. Generally, the more precise the work, the keener the edge requirement.

ANGLES OF TYPICAL BLADES

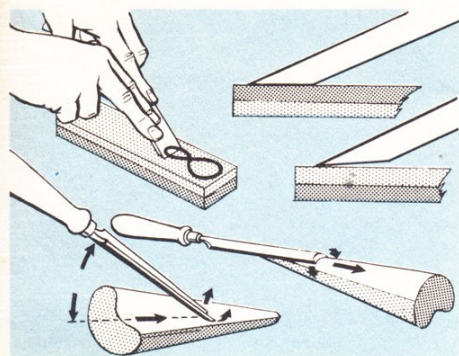


edge bevel is like the ground less fine because of the angle.

has a comparatively purpose, rough use. A sharpish will stand up best, and a fine edge will be

THE WOOD CHISEL is typical of most wood-working tools in edge bevel and edge finish. The blade bevel is usually at an angle of 25°, and the edge bevel is only slightly more.

THE AXE is nothing more than a heavy wedge. Its edge bevel forms an obtuse angle. The cutting edge can be sharpened almost razor-fine.



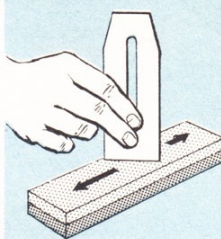
CHISELS . . . PLANES . . . GOUGES

Use same sharpening method for Chisels and Plane Blades. One hand holds blade bevel angle, other supplies pressure. With rigid wrists, move blade in continuous "figure 8," using upper body as well as arms. When finished, remove wire edge. Lay blade bevel flat on fine stone, raise slightly on edge, hold blade firmly and stroke in "figure 8." Occasionally reverse blade and lightly stone face. **GOUGE** edge bevel is sharpened on special stone with rocking, side to side motion, occasionally stroking inside of gouge, side to side, on outside of stone.

represented here are the recommended. Steel files are sometimes necessary for sharpening techniques and devices for the home use properly. Occasional restore bevels and edges.



SHARPENING PRACTICE • BEVELS • STONE CARE



SQUARING THE EDGE

Use squaring tool to check blade edge. If the edge needs truing, hold blade vertical and rub back and forth over stone until edge is square.

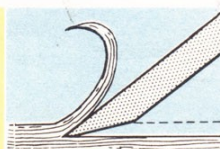
FACE STONING

A true face surface is needed on tools to develop the desired cutting edge. On chisel-type tools, fine stone blade face with oval movement.



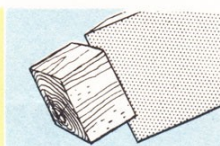
GETTING THE RIGHT BLADE BEVEL

The blade bevel must be at such an angle that the heel, or top of the bevel, clears the work so that the cutting edge is the only part that touches the work. The angle varies with different planes. However, for cutting edge strength, the angle of the blade bevel should not be greater than necessary.



REMOVING THE WIRE EDGE

The wire edge occurs near the end of the sharpening process. It may be so fine that you can only feel it. Remove wire edge by running blade edge across a block of hard wood once or twice. It is important that the wire edge be carefully broken off.



CARE OF THE STONE

- ★ Soak new, unsoiled stone in oil for a few hours before using.
- ★ Wipe stone clean and store by wrapping in an oil soaked cloth.
- ★ Recondition gummy or clogged stone, cleaning with gasoline or ammonia.

When dry, rub with abrasive paper or cloth. Or, heat stone in oven. Rest stone dry while still hot.

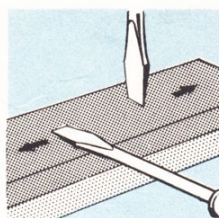
★ Hollowed, unevenly worn stones can be re-dressed. Make a thin paste of water and Aluminum Oxide powder and spread on flat iron plate. Using moderate pressure, scrub stone on plate in circular motion. Aluminum Oxide grit should be slightly coarser than stone.

GENERAL INFORMATION

Basic equipment is a coarse stone and a fine one, or a combination stone. The coarse stone is used for fast "cutting" when edge is very dull and/or nicked. The fine stone is used to get the desired finer edge.

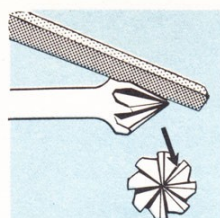
★ Sharpen **against** the edge, excepting—when stropping; when tool is stationary and the stone moved (as a scythe); when tools are irregular shapes like gouges.

- ★ Sharpen at the correct edge bevel. Use light, firm pressure. Let the stone do the work.
- ★ Sharp tools are easier to work with—and safer.
- ★ Fine, light oil aids sharpening and prevents stone from glazing and filling.



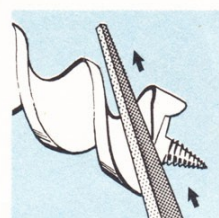
SCREWDRIVER

Blade edges can quickly be restored on a coarse stone. Keep the face edges of the blade parallel and carefully shape the bottom of the blade square.



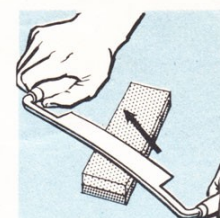
COUNTERSINK

A worn or nicked countersink can be restored by stoning the face of the cutting edges. The stone should be fine grit. The triangular shaped File is most handy.



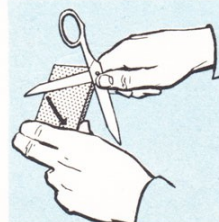
AUGER BIT

Stone upper side of inside cutting edge. Retain original bevel angle. Stone lower side only to remove any burr. Stone only the inside edges of cutting spurs.



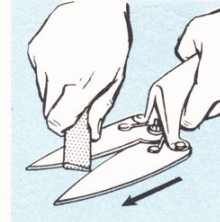
DRAW KNIFE

Draw blade at correct bevel angle diagonally across stone so that all parts of the edge are equally stoned. Remaining procedure is same as with plane blade.



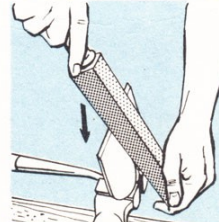
SCISSORS

Place stone so one blade will hang clear. Grasp shears near middle and draw cutting edge diagonally the length of stone. Use Coarse side, then Fine side.



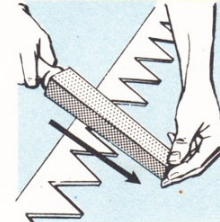
GARDEN & PRUNING

If blades can be spread, sharpen like household scissors. Or, if practical, take apart and sharpen the blades individually. Or, use Slip and sharpen as illustrated.



SPADE—SHOVEL—HOE

Sharpening these tools makes them far easier to work with. A coarse edge is sufficient. Use a stone utility File in a diagonal motion against the blade edge.



MOWER BLADES

Without removing from machine, section knife can be sharpened with a few strokes, using a stone utility File. Shape permits reaching every part of bevel.